WATER CONSERVATION ALERT!
Reduce Water Use by 25%

The following **NEW*** and existing drought regulations are in effect and refer to potable water (water that is suitable for drinking) only:

- ♦ *Watering of grass and ornamental landscapes is limited to two days per week as follows:
- Odd-numbered addresses: Monday & Thursday
- Even-numbered addresses): Tuesday & Friday
- Lots with NO addresses (such as medians & parks): Tuesday & Friday
- Water accounts that use an irrigation meter & 250 units of water or more per year may apply for the Alternate Irrigation Plan program to achieve a 25% use reduction
- ♦ *Watering of grass and ornamental landscapes is only allowed between the hours of 6 p.m. and 10 a.m.
- ♦ Watering of grass and ornamental landscapes is prohibited during and 48 hours following rain.
- ♦ Hoses used for any purpose must be fitted with shut-off nozzles.
- ♦ Use of water is not allowed which results in flooding or runoff in gutters, driveways or streets.
- ♦ Washing of hard surfaces is prohibited, including but not limited to, driveways, patios, parking lots or other paved surfaces, & buildings.
- ♦ Fountains or decorative water features are prohibited, unless the water is recirculated.
- ♦ Restaurants and anywhere food or drink are served can only serve drinking water upon request.
- ♦ Hotels & motels must offer guests the option of not washing towels and linens daily.

New Regulations. Warning Notices and fines will potentially apply for violating these regulations.

Water Saving Tips

1. Install a low flow showerhead and take 5-minute or less showers. Free showerheads and timers available.
2. Catch water in watering can or bucket while waiting for water to get hot.
3. Replace your toilet with a high-efficiency model or put a water displacement bag in each toilet tank. Free displacement bags are available and rebates are available for qualifying high-efficiency toilets.
4. Fix all leaky toilets, faucets and pipes. Install low flow faucet aerators in the kitchen and bathroom. Free low flow aerators are available.
5. Scrape plates and run the garbage disposal less frequently. Compost food scraps instead.
6. Turn off the water while brushing your teeth and shaving.
7. Run only full loads in dishwashers & clothes washers. Replace these appliances with water efficient machines. Rebates are available for qualifying high-efficiency clothes washer models.
8. Water lawns/landscaping between 6:00 pm and 10:00 am. Be sure not to over water landscaping. Check & adjust sprinkler heads seasonally. Plant drought-tolerant and native plants.
9. Use a carwash facility or use a bucket of water and one short rinse to wash your car; wash on a permeable surface (grass or gravel).
10. Sweep (never hose) driveways, patios and sidewalks.

You can pick-up free water saving devices at City Hall's Public Works Counter, Monday-Friday, 8:30 am-5:00 pm: Showerheads (bring in your old one in exchange), faucet aerators, shower timers, toilet leak tablets, and garden and landscaping guides. Rebates are available for high efficiency toilets, clothes washers, rain barrels and cisterns. For more information & tips visit **www.ci.millbrae.ca.us/waterconservation** or call 650-259-2348.

Contaminants & Regulations

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, that can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production, and mining activities.

More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline **800-426-4791**.

Reducing Lead from Plumbing Fixtures

Lead found in drinking water is primarily from materials and components associated with service lines and home plumbing. There are no known lead service lines in the SFRWS. We are responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. It is possible that lead levels at your home may be higher than at others because of plumbing materials used in your property.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Infants and young children are typically more vulnerable to lead in drinking water than the general population. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead levels in your water, you may wish to have your water tested. Additional information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the USEPA's Safe Drinking Water Hotline **800-426-4791**, or at ***www.epa.gov/safewater/lead***.

Special Health Needs

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as those with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly people, and infants, can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline **800-426-4791** or at ***www.epa.gov/safewater***.

City of Millbrae 2014

Water Quality Report

CALIFORNIA IS IN A DROUGHT— PLEASE USE WATER WISELY!

Following another historically dry year and mandatory drought regulations by the State, all customers are asked to reduce water use by 25%. The new & existing regulations are in effect. Please see the back page of this report for a listing of mandatory regulations for all water users.

A MESSAGE FROM YOUR WATER DIVISION

The City of Millbrae, Public Works Department

We present to you the City of Millbrae 2014 water quality report. Pursuant to federal regulations mandated by the Safe Drinking Water Act, all water consumers are to be provided annual information about their water and its sources.

We want our customers to know the origin of their drinking water supply and the specifics of the treatment(s) that it receives by the City of Millbrae, Public Works, Utilities and Operations staff and the San Francisco Public Utilities Commission (SFPUC).

The City of Millbrae also endeavors to inform its water customers about the challenges we face and the efforts we make to continuously provide water quality of the highest caliber. Furthermore, we would like to encourage all water consumers to play an active role in the vital decisions that are made to protect our water resources and to ensure the quality of the water supply that is delivered to all homes and businesses in Millbrae.

We believe it is in everyone's interest to obtain a high quality and reliable water supply because it is integral to personal health, environmental integrity and community prosperity.

Water Quality and You

Water quality is extremely important, because we cannot survive without a clean and reliable source of it. The City of Millbrae; our water supplier, the San Francisco Public Utilities Commission (SFPUC); the California Department of Public Health (CDPH); & the United States Environmental Protection Agency (USEPA) are all working simultaneously to ensure that we provide the highest quality water and to educate water consumers and encourage their involvement in relevant decisions. Consumers who familiarize themselves with the basic drinking water information contained in this report will be able to participate more effectively in these decision making processes. Together, we can be a great force to promote programs that will aid us in continuing to deliver water that meets the highest possible standards.

For More Information

City of Millbrae Chip Taylor, Public Works Director (650) 259-2339	http://www.ci.millbrae.ca.us
San Francisco Public Utilities Commission (SFPUC) Customer Service (415) 551-3000	http://sfwater.org
State Water Resources Control Board (SWRCB) Drinking Water (916) 449-5577	http://www.swrcb.ca.gov
US Environmental Protection Agency (USEPA) Safe Drinking Water Hotline (800) 429-4791	http://www.epa.gov
American Water Works Association (AWWA) Contact Line (800) 926-7337	http://www.awwa.org

Millbrae Water Quality Assurance Programs

The Millbrae Water Division conducts a comprehensive water quality assurance program. We collect and report over forty samples a month throughout our system to regularly monitor water quality. We send samples to a state certified laboratory for testing and are pleased to report that all samples have tested negative for coliforms and that the City had zero violations related to any maximum contaminant level (MCL) in the calendar year 2014.

Other water samples are collected periodically to check for levels of lead & copper, disinfection by-products trihalomethanes and haloacetic acids (THMs and HAAs) and general physical components as required by state and federal regulations. The City of Millbrae received a waiver for asbestos sampling.

The City of Millbrae continually monitors all five main entry points to our distribution system and also other key points in the distribution system such as our tank sites and pump stations. These sites are monitored by our computerized SCADA (Supervisory Control and Data Acquisition) system that provides our Water Division managers with continuous automated water quality information.

In addition, the Millbrae water division, along with the San Mateo County Environmental Health Department, administers and manages a cross-connection prevention program to eliminate possible contamination to our drinking water through backflow prevention devices. The program includes yearly testing of all city-owned backflow devices and monitoring of compliance on privately owned backflow devices*.

A note to residents and business owners who have backflow prevention devices: State regulations require that all backflow prevention devices be tested annually by a certified inspector.

Translation Languages: This report contains important information about your drinking water. Translate it, or speak with someone who understands it.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien. Para ver una versión en español, visite nuestro sitio web en www.ci.millbrae.ca.us/CCR

此份有關你的食水報告,內有重要資料和訊息,請找他人為你翻譯及解釋清楚。

この情報は重要です。翻訳を依頼してください。

Our Drinking Water Sources and Treatment

The sources of drinking water (both tap water and bottled water) include rivers, lakes, oceans, streams, ponds, reservoirs, springs, and wells.

Supplied by the San Francisco Regional Water System (SFRWS), our major water source originates from spring snowmelt flowing down the Tuolumne River to storage in Hetch Hetchy Reservoir. The pristine, and well protected Sierra water source is exempt from filtration requirements by the United States Environmental Protection Agency (USEPA) and State Water Resources Control Board's Division of Drinking Water (SWRCB). Water treatments provided by the SFRWS, including disinfection by ultraviolet light and chlorine, corrosion control by adjustment of the water pH value, fluoridation for dental health protection, and chloramination for maintaining disinfectant residual and minimizing disinfection byproduct formation, are in place to meet the drinking water regulatory requirements.

The Hetch Hetchy water is supplemented with surface water from two local watersheds. Rainfall and runoff from the 35,000-acre Alameda Watershed in Alameda and Santa Clara counties are collected in the Calaveras and San Antonio reservoirs for filtration and disinfection at the Sunol Valley Water Treatment Plant. Rainfall and runoff from the 23,000-acre Peninsula Watershed in San Mateo County are stored in the Crystal Springs, San Andreas, and Pilarcitos reservoirs, and are filtered and disinfected at the Harry Tracy Water Treatment Plant.

As in the past, the Hetch Hetchy Watershed provided the majority of our total water supply, with the remainder being contributed by the two local watersheds in 2014.

Maintaining Water Quality in Your Home or Business

Customers can help to maintain a high standard of water quality, too. By following the simple measures described here you can help prevent contamination of your water.

Hot water heaters: Flush water heater tank through the drain outlet at the bottom annually.

Cross-connections: Some water users have contaminated their drinking water by creating cross connections that can siphon toxic fluids into their plumbing system. You can prevent them by doing the following:

1. Install anti-siphon fittings on all outside faucets.
2. Depressurize all hoses when not in use.
3. Remove garden aspirator-type sprayers immediately after using.
4. Disconnect all hoses extending from the faucet into the sink.

Sinks: Clean faucet aerators regularly.

Protecting Our Watersheds

The SFPUC's annual Hetch Hetchy Watershed Sanitary Survey evaluates the sanitary conditions, water quality, potential contamination sources, and the results of watershed management activities with partner agencies including the National Park Service and US Forest Service.

The SFPUC also conducts sanitary surveys every five years to detect and track sanitary concerns for the local watersheds and the approved standby water sources in Early Intake Watershed, which includes Cherry Lake and Lake Eleanor. The latest 5-year surveys were completed in 2011 for the period of 2006-2010. These surveys identified wildlife, stock, and human activities as potential contamination sources. The reports are available for review at the San Francisco District office of SWRCB (510) 620-3474.

Water Quality

The SFPUC's Water Quality Division (WQD) regularly collects and tests water samples from reservoirs and designated sampling points throughout the system to ensure the water delivered to you meets or exceeds federal and state drinking water standards. In 2014, staff conducted more than 52,000 drinking water tests in the transmission and distribution systems. This is in addition to the extensive treatment process control monitoring performed by the SFPUC's certified operators and online instruments.

As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Such substances are called contaminants.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. In order to ensure that tap water is safe to drink, the USEPA and SWRCB prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. SWRCB regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Treatment Plant Improvements

The Harry Tracy Water Treatment Plant Long-Term Improvements Project is now complete. The $280 million project includes significant upgrades to the ozonation system (an effective oxygen-based method for destroying bacteria, viruses and odors), construction of five new filters and a new 11-million gallon treated water reservoir. The overall improvements in performance will increase the plant's capacity and reliability for treating drinking water for San Francisco and San Mateo County. It also ensures that the plant can reliably produce 140 MGD of water within 24 hours of a major earthquake.

Fluoridation and Dental Fluorosis

Mandated by State law, water fluoridation is a widely accepted practice proven to be safe and effective for preventing and controlling tooth decay. Our water has been fluoridated at 0.9 milligram per liter until May 2015, when the new State regulatory guidance was issued. The water is now fluoridated at a new optimal level of 0.7 mg/L. Infants fed formula mixed with water containing fluoride at this level may have an increased chance of developing tiny white lines or streaks in their teeth. These marks are referred to as mild to very mild fluorosis, and are often only visible under a microscope. Even in cases where the marks are visible, they do not pose any health risk. CDC considers it safe to use optimally fluoridated water for preparing infant formula. To lessen this chance of dental fluorosis, you may choose to use low-fluoride bottled water to prepare infant formula. Nevertheless, children may still develop dental fluorosis due to fluoride intake from other sources such as food, toothpaste and dental products. Contact your health provider or SWRCB if you have concerns about dental fluorosis. For additional information visit the SWRCB website ***www.swrcb.ca.gov/*** and search for fluoride, or the CDC website ***www.cdc.gov/fluoridation***.

Unregulated Contaminant Monitoring Rule (UCMR3)

In May 2012, the USEPA published the third Unregulated Contaminant Monitoring Rule (UCMR3) that lists a total of 28 chemical contaminants and two viruses for monitoring by some public water systems between 2013 and 2015. USEPA uses the UCMR to collect data for contaminants suspected to be present in drinking water to help determine if drinking water standards need to be developed in the future. Below you will find the City of Millbrae's 2014 UCMR3 test results.

Detected Contaminants	Unit	MCL	PHG or (MCLG)	Range	Average	Typical in Drinking Water
Chlorate	ppb	800 (NL)	NA	62-200	129	Degradation or disinfectant
Chromium-total[2]	ppb	50	(100)	<0.2	<0.2	Erosion of natural deposits; industrial discharges
Chromium-6[3]	ppb	10	0.02	0.04-0.14	0.05	Erosion of natural deposits; industrial discharges
Strontium	ppb	NA	NA	13-240	63	Erosion of natural and pipe deposits
Vanadium	ppb	50 (NL)	NA	<0.2-0.45	0.17	Erosion of natural and pipe deposits

Lead & Copper Monitoring

In addition, the City of Millbrae follows a CDPH approved "reduced triennial monitoring frequency" schedule for measuring levels of lead and copper. This means we are consistently below the maximum contaminant level for both of these inorganic elements. Results from our 2014 tests validate this classification, because the City continues to be well within all required standards concerning lead and copper.

What Does This Table Mean?

This table shows the results of our water quality analysis for 2014. It contains the name of each substance, the highest level allowed by regulation (MCL), the ideal goals for public health (PHG), the amount detected, the typical sources of such contamination, footnotes to explain our findings & a key to the units of measurement.

Key Water Quality Terms

Following are definitions of key terms referring to standards and goals of water quality noted on the adjacent data table.

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the USEPA.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs or MCLGs as is economically and technologically feasible. Secondary MCLs (SMCLs) are set to protect the odor, taste, and appearance of drinking water.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Primary Drinking Water Standard (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Regulatory Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Turbidity: A water clarity indicator that measures cloudiness of the water, and is also used to indicate the effectiveness of the filtration system. High turbidity can hinder the effectiveness of disinfectants.

Cryptosporidium is a parasitic microbe found in most surface water. We regularly test for this waterborne pathogen, and found it at very low levels in source water and treated water in 2014. However, current test methods approved by the USEPA do not distinguish between dead organisms and those capable of causing disease. Ingestion of *Cryptosporidium* may produce symptoms of nausea, abdominal cramps, diarrhea, and associated headaches. *Cryptosporidium* must be ingested to cause disease, and it may be spread through means other than drinking

DETECTED CONTAMINANTS	Unit	MCL	PHG or (MCLG)	Range or Level Found	Average or [Max]	Major Sources in Drinking Water
TURBIDITY						
Unfiltered Hetch Hetchy Water	NTU	5	N/A	0.2 - 0.6 (2)	[2.8]	Soil runoff
Filtered Water from Sunol Valley Water Treatment Plant (SVWTP)	NTU	1 (3) Min 95% of samples ≤ 0.3 NTU (3)	N/A	97% - 100%	[0.98]	Soil runoff
Filtered Water from Harry Tracy Water Treatment Plant (HTWTP)	NTU	1 (3) Min 95% of samples ≤ 0.3 NTU (3)	N/A	100%	[0.07]	Soil runoff
DISINFECTION BYPRODUCTS AND PRECURSOR						
Total Trihalomethanes	ppb	80	N/A	22 - 47	34.5	Byproduct of drinking water disinfection
Haloacetic Acids	ppb	60	N/A	16.9 - 36.7	26.8	Byproduct of drinking water disinfection
Total Organic Carbon (5)	ppm	TT	N/A	1.3 - 2.8	1.9	Various natural and man-made sources
MICROBIOLOGICAL						
Total Coliform (6)	-	NoP ≤ 5.0% of monthly samples	(0)	-	0%	Naturally present in the environment
Giardia lamblia	cyst/L	TT	(0)	<0.01 - 0.04	<0.01	Naturally present in the environment
INORGANICS						
Fluoride (source water) (7)	ppm	2.0	1	ND - 0.8	0.4 (8)	Erosion of natural deposits; water additive to promote strong teeth
Chloramine (as chlorine)	ppm	MRDL = 4.0	MRDLG = 4	0.1	3.1	Drinking water disinfectant added for treatment

CONSTITUENTS WITH SECONDARY STANDARDS	Unit	SMCL	PHG	Range	Average	Major Sources of Contaminant
Chloride	ppm	500	N/A	<3 - 15	9	Runoff / leaching from natural deposits
Odor Threshold	TON	3	N/A	ND - 1	ND	Naturally-occurring organic materials
Specific Conductance	µS/cm	1600	N/A	32 - 222	151	Substances that form ions when in water
Sulfate	ppm	500	N/A	0.9 - 32	17	Runoff / leaching from natural deposits
Total Dissolved Solids	ppm	1000	N/A	31 - 120	81	Runoff / leaching from natural deposits
Turbidity	NTU	5	N/A	0.1 - 0.2	0.1	Soil runoff

LEAD AND COPPER	Unit	AL	PHG	Range	90th Percentile	Major Sources in Drinking Water
Copper	ppb	1300	300	n/a	n/a	Internal corrosion of household water plumbing systems
Lead	ppb	15	0.2	n/a	n/a	Internal corrosion of household water plumbing systems

OTHER WATER QUALITY PARAMETERS	Unit	ORL	Range	Average
Alkalinity (as $CaCO_3$)	ppm	N/A	8 - 94	37
Bromide(12)	ppb	N/A	ND - 27	5
Calcium (as Ca)	ppm	N/A	3 - 20	11
Chlorate(13)	ppb	800 (NL)	34 - 740	314
Hardness (as $CaCO_3$)	ppm	N/A	7 - 77	46
Magnesium	ppm	N/A	<0.2 - 6.4	3.9
pH	-	N/A	6.9 - 10.2	9.3
Potassium	ppm	N/A	0.2 - 1	0.6
Silica	ppm	N/A	2 - 5	4
Sodium	ppm	N/A	2.4 - 16	10

KEY:

< / ≤ = less than / less than or equal to
AL = Action Level
Max = Maximum
Min = Minimum
N/A = Not Available
ND = Non-detect
NL = Notification Level
NoP = Number of Coliform-Positive Sample
NTU = Nephelometric Turbidity Unit
ORL = Other Regulatory Level
ppb = part per billion
ppm = part per million
TON = Threshold Odor Number
µS/cm = microSiemens/centimeter

(1) All results met State and Federal drinking water health standards.

(2) These are monthly average turbidity values measured every 4 hours daily.

(3) There is no turbidity MCL for filtered water. The limits are based on the TT requirements for filtration systems.

(4) This is the highest locational running annual average value.

(5) Total organic carbon is a precursor for disinfection byproduct formation. The TT requirement applies to the filtered water from SVWTP only.

(6) SWRCB specifies the fluoride level in treated water be maintained within a range of 0.8 ppm - 1.5 ppm. In 2014, the range and average of the fluoride levels were 0.6 ppm - 1.2 ppm and 0.9 ppm, respectively.

(7) The natural fluoride level in the Hetch Hetchy supply was ND. Elevated fluoride levels in the SVWTP & HTWTP raw water are attributed to the transfer of fluoridated Hetch Hetchy water into the reservoirs.

(8) This is the highest running annual average value.

(9) The most recent Lead & Copper Rule monitoring was in 2013. 0 of 30 site samples collected at consumer taps had copper concentrations above the AL.

(10) The most recent Lead and Copper Rule monitoring was in 2013. 1 of 30 site samples collected at consumer taps had lead concentrations above the AL.

(11) The detected chlorate in the treated water is a degradation product of sodium hypochlorite used by the SFPUC for water disinfection.